



Penny Hansen, ETV director, described the program's future at the AMS Center's air stakeholder committee meeting in March.

Collaboration is Name of New Game for Several ETV Centers

The Advanced Monitoring Systems Center (AMS), one of six centers in the EPA's Environmental Technology Verification (ETV) program, is continuing to look for a few good partners—e.g., other federal agencies, states, private sector companies, and trade associations—to share the costs and benefits of conducting verification tests of needed air and water monitoring technologies.

The AMS Center's high priority technologies to be tested range from instruments that monitor organic speciation of emissions from stacks to portable water analyzers that monitor for arsenic in drinking water (see list on page 2).

Additional funding sources and in-kind support are keys to conducting verification tests of these priority technologies over the next few years.

Having partners in verification testing has become even more important now that the ETV

program has moved from the 12-pilots phase to six fully operational centers.

"Over the past five years, we have been able to design and operate a cost-effective but still high-quality verification program," said Penelope Hansen, ETV director, at the AMS Center's air stakeholder committee meeting in March. "Partnering with private companies and federal or state agencies is critical to ETV's continuing success," she added, "and we already have a number of collaboration success stories, where all parties benefited from the experience."

Here are examples of successful partnering and planning for verification tests:

- Collaborators for the first phase of the AMS Center's verification test of mercury continuous emission monitors (CEMs) in January included EPA's National Risk Management Research Laboratory (NRMRL) in the Office of Research and

Development (ORD) at Research Triangle Park, NC, and the Massachusetts Department of Environmental Protection (DEP). Final reports on this phase are expected to be available in June.

- Last August, a different partner—the U.S. Department of Energy's (DOE) National Energy Technology Laboratory (NETL)—hosted the first phase of the AMS Center's verification test of 13 ambient fine particulate monitors. NETL conducts ongoing research on the levels and chemical nature of fine particulate matter. The second phase of the AMS Center's test—which was co-hosted by the California Air Resources Board—was completed at an EPA SuperSite in Fresno, CA, in January. Data from both phases will be combined in reports for each technology tested. After reviews of the draft reports by participating vendors and peer reviewers, final reports are expected to be available by this fall.

- ETV's Greenhouse Gas Technology Center (GGTC) is

(See Collaboration on page 2)



The AMS Center is part of the U.S. Environmental Protection Agency's Environmental Technology Verification Program. ETV was established to accelerate the development and commercialization of improved environmental technologies through third-party verification testing and reporting of the technologies' performance. The ETV process provides purchasers and permittees with an independent assessment of the technology they are buying or permitting and facilitates multi-state acceptance. For further information, contact Helen Latham at Battelle, 505 King Ave., Columbus, Ohio 43201-2693; Phone 614-424-4062; Fax 614-424-5601; E-mail lathamh@battelle.org.

Meet the Stakeholder Committees

Two members of the AMS Center's stakeholder committees are periodically spotlighted in *The Monitor*—one each from the air and water committees.



Roy Owens
Air Stakeholder
Committee

Roy Owens is an environmental engineer for Owens Corning who concentrates on new air sampling technologies and new uses for older technologies. He has a B.S. in chemistry and an M.S. in environmental systems engineering from Clemson University, with an emphasis on both air and water technologies. His current responsibilities include overseeing both ambient and stack emissions monitoring, preparing reports, developing new test methods to meet monitoring needs, and interacting with federal, state, and local officials.

Prior to coming to Owens Corning in 1979, Mr. Owens was a chemist in the South Carolina Department of Health and Environmental Control, where he analyzed water and wastewater samples using both chemical and biological processes. While in that assignment, he obtained licenses as a water treatment plant operator and for water treatment plant operations.

Mr. Owens is a member of the American Chemical Society, the Air and Waste Management Association, and the Source Evaluation Society. He serves on a Society committee that is considering industrial perspectives on testing and approaches to current problems.



John Carlton
Water Stakeholder
Committee

John Carlton is chief of the Mobile Branch of the Field Operations Division for the Alabama Department of Environmental Management. The Mobile Branch is responsible for ambient air and water quality monitoring and facility inspections in southwest Alabama and also implements the permitting and regulatory portions of the Alabama Coastal Area Management Program. He has a B.S. degree from the University of South Alabama, with a major in biology and a minor in chemistry, and has worked in environmental monitoring and management for more than 22 years.

He designed and planned the state's Coastal Water Quality Monitoring Program (called ALAMAP); authored the state's coastal program regulations and the Department's spill response plan for oil and hazardous materials; and contributed to the Department's *Standard Operating Procedures and Quality Control Assurance Manual for Field Operations*.

Mr. Carlton serves on several state and regional committees, including the Gulf of Mexico Program's Policy Review Board, Management Committee and Technical Steering Committee; the Mobile Bay National Estuary Program Policy Committee; the Weeks Bay National Estuarine Research Reserve Advisory Committee; and the Legislative Coastal Shoreline Erosion Task Force.

Collaboration (from page 1)

partnering with Natural Resources Canada, a Canadian federal agency with energy and interior responsibilities, to conduct verification tests of greenhouse gas mitigation technologies. The Canadian agency is considering 60 technologies from private sector vendors for possible use and selected the GGTC as its partner to ensure credible, independent tests.

- ETV's Water Protection Technology Center and the U.S. Coast Guard (USCG) are cooperating in a verification test to evaluate new commercially ready technologies to address ballast water/invasive species controls issues. Technical experts are identifying test parameters and procedures prior to developing a test protocol. The question of where to conduct a verification test may be answered by the state of Washington, which has obtained funding to convert a USCG facility on Marrowstone Island into a land-based test site. Washington has laws requiring treatment of ballast water on ships by July 2002. Work on ship ballast water treatment technologies is being conducted at the University of Miami, FL. The state of Washington and the University of Miami have expressed interest in collaborating on the test.

Ms. Hansen said the ETV program will continue to support the stakeholder process, generic protocol development, program outreach, quality assurance, and report writing and review. Verification testing, data analysis, and product outreach will need to be supported by vendors and others, including partners.

High Priority Technologies

Air

- Instruments to monitor organic speciation of vapors in stacks (e.g., dioxins, benzene, phenol)
- Leak detectors for fugitive emissions from valves and flanges
- On-board vehicle emission monitors
- Portable electrochemical SO₂ analyzers
- Continuous emission monitors (CEMs) for ammonia "slip" from NO_x catalytic control technologies.

Water

- Portable water analyzers or test kits to monitor arsenic in drinking water
- Field-deployable multi-parameter water quality probes
- Rapid detectors of biological contaminants
- Microbiological methods and sensors to detect chemical contaminants.